IN THE CLAIMS:

Please amend the claims as indicated below.

1. (Currently Amended) A method for frame delineation in a ~~of~~ data communication system, comprising:

transmitting a plurality of data frames temporally separated by respective inter-packet gaps (IPGs), each IPG having positioned within it at least a synchronization pattern suitable for delineating a respective data frame and identifying a transition point between said respective data frame and a subsequent control portion.

2. (Previously Presented) The method of claim 1, wherein a length indicative data element is positioned within said IPG, each length indicative data element storing a length parameter associated with a data frame adjacent said IPG.

3. (Previously Presented) The method of claim 2, wherein said length indicative data element comprises a count of a number of double words within said adjacent data frame.

4. (Previously Presented) The method of claim 2, wherein said length indicative data element comprises a count of a number of words within said adjacent data frame.

5. (Previously Presented) The method of claim 1, wherein a cyclical redundancy check (CRC) data element is positioned within each IPG, said CRC data element storing a CRC generated using a data frame adjacent said IPG.

6. (Previously Presented) The method of claim 5, wherein said adjacent data frame is scrambled using a polynomial which is relatively prime with a CRC generator polynomial used to generate said respective CRC indicative data element.

7. (Previously Presented) The method of claim 1, wherein said data frame is scrambled using a polynomial.

8. (Previously Presented) The method of claim 7, wherein said scrambled data frame and the contents of said adjacent IPG are scrambled.

9. (Previously Presented) The method of claim 1, wherein a pointer data element is positioned within said IPG, said pointer data element indicating the position of a next data frame.

10. (Currently Amended) A method ~~protocol suitable~~ for delineating data frames within a communications link, ~~said protocol comprising a plurality of layers including a physical coding sublayer (PCS), said PCS processing a data to be transmitted as a sequence of data frames, protocol~~ comprising:

receiving a data stream to be transmitted as a sequence of data frames; and

inserting, into a temporal region following each transmitted data frame, a synchronization pattern suitable for delineating said data frame and identifying a transition point between said respective data frame and a subsequent control portion.

11. (Currently Amended) The ~~protocol~~ method of claim 10, further comprising:

inserting, into said temporal region following each transmitted data frame, a cyclical redundancy check (CRC) data element generated using the contents of said data frame.

12. (Currently Amended) The ~~protocol~~ method of claim 11, further comprising:

inserting, into said temporal region following each transmitted data frame, a length indicative data element generated according to the contents of a respective data frame.

13. (Currently Amended) The ~~protocol~~ method of claim 10, further comprising:

scrambling said received data included within said sequence of data

frames; and

determining whether said scrambled data include a data pattern that ~~may be interpreted as being~~ is equivalent to said synchronization pattern; and

in the case of finding such a matching data pattern, inserting an error message into said data frame being formed.

14. (Currently Amended) The ~~protocol~~ method of claim 13, wherein said scrambling is performed using a polynomial which is relatively prime with a CRC generator polynomial used to generate a CRC indicative data element, said CRC indicative data element being inserted into a temporal region following said data frame from which said CRC was generated.

15. (Currently Amended) A method for transmitting data, comprising:

transmitting, to a physical media dependent (PMD) layer, a sequence of idle control characters;

transmitting, to said PMD layer, a start of frame delineator (SFD) upon detecting the presence of data to be transmitted;

transmitting said received data until an entire data frame has been transmitted; and

transmitting, upon the transmission of said entire data frame, an end of frame delineator (EFD) and a termination flag (T-FLAG), said T-FLAG comprising a respective relatively long synchronization pattern suitable for delineating said data frame and identifying a transition point between said respective data frame and a subsequent control portion.

16. (Currently Amended) The method of claim 15, further comprising:

scrambling said data that forms ~~forming~~ said data frame.

17. (Original) The method of claim 16, further comprising:

scrambling said scrambled data, said SFD, said EFD and said T-FLAG.

18. (Original) The method of claim 15, further comprising:

transmitting, to said PMD layer, an error flag (E-FLAG) upon detecting an arrangement of data within said data frame substantially equivalent to said T-FLAG synchronization pattern.

19. (Original) The method of claim 15, further comprising the step of:

transmitting, upon the transmission of said entire data frame, a pointer indicative of the position of a next data frame to be transmitted.

20. (Currently Amended) A method for receiving data, comprising:

determining data frame delineation points within a received data stream by detecting the presence of a synchronization pattern within said data stream, said synchronization pattern being positioned within inter-packet gaps (IPGs) and identifying a transition point between a respective data frame and a subsequent control portion; and

forming data frames for subsequent processing by utilizing said determined delineation points.

21. (Original) The method of claim 20, wherein said detection of said synchronization pattern comprises a correlation of data within said data stream to at least an n-bit difference between said synchronization pattern and said reference synchronization pattern.

22. (Original) The method of claim 21, further comprising:

discarding all data pertaining to a data frame being formed in response to the detection of an error flag within said input data stream.

23. (Currently Amended) The method of claim 20, further comprising:

identifying a cyclical redundancy check (CRC) data element proximate ~~said~~ a termination flag (T-FLAG) and within a respective IPG; and

utilizing said detected CRC and a CRC generated using a corresponding formed data frame to determine whether said formed data frame has been corrupted.

24. (Original) The method of claim 20, further comprising:

detecting a length indicative data element proximate said T-FLAG and within a respective IPG; and

determining whether said received data frame has a length proximate the length indicated by said length detected length indicative data element.

25. (Original) The method of claim 20, further comprising:

detecting a pointer within said data stream proximate said T-FLAG, said pointer identifying a start position of a next data frame; and

determining whether a gap within said data stream exists indicative of the corruption of a T-FLAG prior to the reception of said data stream.

26. (Original) The method of claim 20, wherein said data stream is received from a physical media dependent (PMD) layer and said formed data frames are provided to a media access control (MAC) interface layer.

Please add the following new claims:

27. (New) The method of claim 1, wherein each data frame is transmitted on a single channel.

28. (New) The method of claim 1, wherein said data frames are encoded using an encoding scheme with substantially zero overhead.

29. (New) The method of claim 10, further comprising the step of encoding said data stream using an encoding scheme with substantially zero overhead.